



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/642,286	08/18/2000	Koichi Takeuchi	7217/62364	7542

7590 03/11/2004

Jay H Maioli  
Cooper & Dunham LLP  
1185 Avenue of the Americas  
New York, NY 10036

EXAMINER

VU, NGOC YEN T

ART UNIT	PAPER NUMBER
----------	--------------

2612

DATE MAILED: 03/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/642,286

Applicant(s)

TAKEUCHI ET AL.

Examiner

Ngoc-Yen T. Vu

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on 18 August 2000.

2a) ☐ This action is FINAL.

2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) 1-19 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) 1-19 is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 18 August 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some \* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_

4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other:

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

2. Figures 16-17 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2612

4. Claims 1, 2, 4, 5, 8, 9, 10, 11, 13, 14, 17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Takatsu (US #4,686,572).

Regarding claim 1, Takatsu '572 teaches a lens unit comprising:

a zoom lens (lens 1; Official Notice is taken that it is well known in the art for an electronic camera to have a zoom lens in the lens unit);

light quantity adjusting means (diaphragm 2, shutter 3);

an electronic optical shutter (liquid shutter 15 and IT CCD 4) provided on a stage of said zoom lens; and

an optical shutter driving portion (DR 17 and CONT 20) for controlling said electronic optical shutter to open in a predetermined pattern (col. 2 line 2 – col. 3 line 9; col. 4 line 1 – col. 5 line 59).

As to claim 2, Takatsu teaches that said light quantity adjusting means (diaphragm 2, shutter 3) is a diaphragm for changing the size of an opening mechanically (col. 1 line 64 – col. 2 line 5; col. 3 lines 22 – 54; col. 4 lines 30+).

As to claim 4, Takatsu teaches that said electronic optical shutter (liquid shutter 15 and IT CCD 4) is disposed near said light quantity adjusting means (diaphragm 2, shutter 3) (see Fig. 2).

As to claim 5, Takatsu teaches that said electronic optical shutter is composed of a liquid shutter (shutter 15) (see Fig. 2).

As to claim 8, Takatsu teaches that said electronic optical shutter is utilized simultaneously as said light quantity adjusting means (col. 1 line 64 – col. 3 line 9; col. 4 line 1 – col. 5 line 59).

As to claim 9, Takatsu teaches that said electronic optical shutter is composed of a liquid shutter (shutter 15) (see Fig. 2).

Regarding claim 10, Takatsu '572 teaches a camera (see Fig. 2) comprising:

a zoom lens (lens 1; Official Notice is taken that it is well known in the art for an electronic camera to have a zoom lens in the lens unit);

light quantity adjusting means (diaphragm 2, shutter 3);

an electronic optical shutter (liquid shutter 15 and IT CCD 4) provided on a stage of said zoom lens; and

an optical shutter driving portion (DR 17 and CONT 20) for controlling said electronic optical shutter to open in a predetermined pattern (col. 2 line 2 – col. 3 line 9; col. 4 line 1 – col. 5 line 59).

As to claim 11, Takatsu teaches that said light quantity adjusting means (diaphragm 2, shutter 3) is a diaphragm for changing a size of an opening thereof mechanically (col. 1 line 64 – col. 2 line 5; col. 3 lines 22 – 54; col. 4 lines 30+).

As to claim 13, Takatsu teaches that said electronic optical shutter (liquid shutter 15 and IT CCD 4) is disposed near said light quantity adjusting means (see Fig. 2).

As to claim 14, Takatsu teaches that said electronic optical shutter is composed of a liquid shutter (shutter 15) (see Fig. 2).

As to claim 17, Takatsu teaches that said electronic optical shutter is utilized simultaneously as said light quantity adjusting means (col. 1 line 64 – col. 3 line 9; col. 4 line 1 – col. 5 line 59).

As to claim 18, Takatsu teaches that said electronic optical shutter is composed of a liquid shutter (shutter 15) (see Fig. 2).

5. Claims 10 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Takatsu (US #4,686,572).

Regarding claim 10, Takatsu '572 teaches a camera (see Fig. 2) comprising:  
a zoom lens (lens 1; Official Notice is taken that it is well known in the art for an electronic camera to have a zoom lens in the lens unit);  
light quantity adjusting means (IT CCD 4);  
an electronic optical shutter (liquid shutter 15) provided on a stage of said zoom lens; and  
an optical shutter driving portion (DR 17 and CONT 20) for controlling said electronic optical shutter to open in a predetermined pattern (col. 2 line 2 – col. 3 line 9; col. 4 line 1 – col. 5 line 59).

As to claim 19, Takatsu teaches that said light quantity adjusting means (IT CCD 4) is an electronic shutter constituted of a solid image pickup device (col. 3 lines 10-67; col. 5 line 8 – col. 6 line 28).

6. Claims 1, 3, 6, 7, 10, 12, 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Oaki et al. (US #5,071,229).

Regarding claims 1 and 10, in figures 9-11 Oaki '229 teaches an imaging apparatus including a variable focal length lens (3), light quantity adjusting means (filter 26, aperture stop 4), an electronic optical shutter (27/29/30/28), and an optical shutter driving portion (P2, P3) for

controlling said electronic optical shutter to open in a predetermined pattern (col. 8 line 7 – col. 9 line3).

As to claims 3 and 12, Oaki '229 teaches that said light quantity adjusting means is a filter (26).

As to claims 6 and 15, Oaki '229 teaches said predetermined pattern is switched to a pattern having an opening on the left and a pattern having an opening on the right alternately (see plate 28 in figures 9-11).

As to claims 7 and 16, Oaki '229 teaches that said predetermined pattern changes corresponding to a zoom condition of said zoom lens (col. 2 lines 28-54; col. 3 lines 19-32; col. 6 line 28 – col. 7 line 4).

### *Conclusion*

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc-Yen T. Vu whose telephone number is 703-305-4946. The examiner can normally be reached on Mon. – Fri. from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R. Garber can be reached on 703-305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2612

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



NGOC-YEN YU  
PRIMARY EXAMINER

Art Unit 2612

NYV

03/06/2004